

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Kurt Lappe

Application No.: 10/579,278

Confirmation No.: 8252

Filed: February 13, 2007

Art Unit: 2854

For: Method and Device for Combined Printing

Examiner: Leo T. Hinze

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant filed a Notice of Appeal on June 9, 2011 and an Appeal Brief on July 25, 2011 to appeal the Final Office Action mailed March 15, 2011. The Examiner then reopened prosecution and mailed a new Non-Final Office Action on October 26, 2011. Applicant now appeals the October 26, 2011 Office Action.

Applicant requests that the previously paid fees for the Notice of Appeal (\$270 paid) and the Appeal Brief (\$270 paid) be applied to this Appeal Brief and the concurrently filed Notice of Appeal. Because the fee for each has increased to \$310 from \$270, Applicant should be charged new fees of only \$40 for the Notice of Appeal and \$40 for the Appeal Brief.

This brief contains items under the following headings as required by 37 C.F.R.

§ 41.37 and M.P.E.P. § 1205.2:

- I. Real Party In Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal
- VII. Argument
- Appendix A Claims
- Appendix B Evidence
- Appendix C Related Proceedings

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is Kurt Lappe.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 18 claims pending in the application.

B. Current Status of Claims

1. Claims canceled: 4, 6, 8, 10-17, 21, 26,
2. Claims withdrawn from consideration but not canceled: n/a
3. Claims pending: 1-3, 5, 7, 9, 18-20, 22-25, and 27-31
4. Claims allowed: n/a
5. Claims rejected: 1-3, 5, 7, 9, 18-20, 22-25, and 27-31

C. Claims On Appeal

The claims on appeal are Claims 1-3, 5, 7, 9, 18-20, 22-25, and 27-31.

IV. STATUS OF AMENDMENTS

On July 5, 2011, Applicant filed an Amendment pursuant to 37 C.F.R. § 41.33 to place the application in better condition for appeal and comply with a requirement of form expressly set forth in the Final Action mailed March 15, 2011. Specifically, Applicant amended Claim 27 to reflect that Claim 19, from which Claim 27 depends, is an apparatus claim. The claims in Appendix A of this Appeal Brief incorporate the

amendments made in Applicant's July 2nd Amendment, as well as all previous amendments made during prosecution.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Applicant's claimed invention generally provides for a method and apparatus for producing print products on a substrate, each of the print products include the following vertically aligned on the substrate: a transfer layer, a print, and an embossing. The method is performed successively and continuously in an in-line production process without interruption. This is generally made possible by an active drying step with a drying unit, which dries glue of the transfer layer prior to embossing or printing, or dries ink of the print prior to embossing or transfer of the transfer layer. Prior to Applicant's invention, forming such print products required stopping production so that the glue or ink had time to dry by air drying, thereby increasing production time and cost.

Pursuant to 37 C.F.R. § 41.37(v), a concise explanation of the subject matter claimed in each independent claim is provided below that refers to the specification by page and line number, and to the drawing. The specification citations are to the U.S. Published Application (2007/0234919) for ease of reference because it includes paragraph numbers, and to the drawings by reference numbers. The citations are for exemplary purposes only.

Claim 1

Independent Claim 1 recites a method for the production of print products by combining various immediately successive processing methods, the method comprising the steps of:

<u>Claim Features</u>	<u>Exemplary Specification Citation</u>
partially coating less than an entirety of a base material with an adhesive at predetermined positions of the base material corresponding to intended locations of the print products;	Base material: Figs. 1-3, 5, & 6; ref. no. 2. Adhesive: Figs. 5 and 6; ref. no. 3. Print Products: Fig. 6; ref. no. 22. Fig. 6, ¶ [0050] at lines 1-5; ¶ [0063] at lines 7-15.
providing a transfer film including a carrier foil layer, a parting layer, and a transfer layer;	Transfer film: Figs. 1-3 & 5; ref. no. 10. Carrier foil layer: Figs. 5, 6; ref. no. 18. Parting layer: Figs. 5, 6; ref. no. 19. Transfer layer: Figs. 1-3 & 5; ref. no. 20. Figs. 5,6; ¶ [0062] at lines 1-7.
removing said transfer layer from said carrier foil and transferring less than an entirety of the transfer layer to the base material exclusively at the predetermined positions of the base layer by adhering the transfer layer to the adhesive;	Figs. 5, 6, ¶ [0062] at lines 9-15; ¶ [0063] at lines 7-15; ¶ [0065] at lines 12-18.
providing an embossing at the predetermined positions of the base material;	Figs. 1-3; ¶¶ [0055]-[0056], [0059], [0067].
providing a color printing at the predetermined positions of the base material one of before or after coating the base material with an adhesive; and	Figs. 1-3; ¶ [0054] at lines 24-35; ¶ [0058] at lines 1-11; ¶ [0060] at lines 4-6, and 10-11.
actively drying with a drying device one of the adhesive or the color printing;	Drying device: Figs. 1-3; ref. no. 26. Figs. 1-3; ¶ [0054] at lines 13-24, ¶ [0058] at lines 11-15, ¶ [0060] at lines 10-11.

wherein the print products to be produced successively undergo the steps of the method in one continuous sequence without intermediate storage; and	Figs. 1-3; ¶ [0054] at lines 20-24; ¶ [0065] at lines 3-5; abstract; original Claim 1.
wherein at each predetermined position on the substrate the transferred portion of the transfer layer, the color printing, and the embossing overlap and are positioned in stacked vertical alignment with respect to the base material.	¶ [0018] at lines 4-7 for example; ¶ [0026] at lines 18-21; ¶ [0034] at lines 10-13; ¶ [0035]; ¶ [0054] at lines 20-26 for example; ¶ [0055]; ¶ [0058] at lines 11-15; ¶ [0060] at lines 10-16; ¶ [0067]; original Claims 4, 5, and 6; abstract; Figures 1-3 and 6.

Claim 18

Independent Claim 18 recites a method for producing a print product, the method comprising:

<u>Claim Features</u>	<u>Exemplary Specification Citation</u>
coating a base layer with an adhesive layer exclusively at predetermined positions of the base layer corresponding to desired locations of the print products;	Base layer: Figs. 1-3, 5, and 6; ref. no. 2. Adhesive layer: Figs. 5 and 6; ref. no. 3. Print Products: Fig. 6; ref. no. 22. Fig. 6, ¶ [0050] at lines 1-5; ¶ [0063], at lines 7-15.
providing a transfer film including at least a carrier foil layer, a parting layer, and a transfer layer;	Transfer film: Figs. 1-3 & 5; ref. no. 10. Carrier foil layer: Figs. 5, 6; ref. no. 18. Parting layer: Figs. 5, 6; ref. no. 19. Transfer layer: Figs. 1-3 & 5; ref. no. 20. Figs. 5,6; ¶ [0062] at lines 1-7.
transferring portions of the transfer layer to said base layer exclusively at the predetermined positions including the adhesive;	Figs. 5, 6, ¶ [0062] at lines 9-15; ¶ [0063] at lines 7-15; ¶ [0065] at lines 12-18.
embossing the base layer at the predetermined positions of the base layer one of before or after coating the base layer with the adhesive layer;	Figs. 1-3; ¶¶ [0055]-[0056], [0059], [0067].

printing the base layer with a print at the predetermined positions of the base layer one of before or after coating the base layer with the adhesive layer; and	Figs. 1-3; ¶ [0054] at lines 24-35; ¶ [0058] at lines 1-11; ¶ [0060] at lines 4-6, and 10-11.
actively drying one of the adhesive or the print in a drying unit;	Drying unit: Figs. 1-3; ref. no. 26. Figs. 1-3; ¶ [0054] at lines 13-24, ¶ [0058] at lines 11-15, ¶ [0060] at lines 10-11.
wherein the method is performed successively and continuously without intermediate storage; and	Figs. 1-3; ¶ [0054] at lines 20-24; ¶ [0065] at lines 3-5; abstract; original Claim 1.
wherein at each predetermined position the adhesive, the transfer layer, the print, and the embossing are in overlapping, vertical alignment with respect to the base layer.	¶ [0018] at lines 4-7 for example; ¶ [0026] at lines 18-21; ¶ [0034] at lines 10-13; ¶ [0035]; ¶ [0054] at lines 20-26 for example; ¶ [0055]; ¶ [0058] at lines 11-15; ¶ [0060] at lines 10-16; ¶ [0067]; original Claims 4, 5, and 6; abstract; Figures 1-3 and 6.

Claim 19

Independent Claim 19 recites a combined in-line printing apparatus comprising:

<u>Claim Features</u>	<u>Exemplary Specification Citation</u>
a gluing unit configured to selectively apply an adhesive to a plurality of predetermined positions of a base printing material fed through said printing apparatus, each one of the predetermined positions corresponding to a desired location of a print product on the base printing material;	Gluing unit: Figs. 1-3; ref. no. 1. Adhesive: Figs. 5 and 6; ref. no. 3. Base printing material: Figs. 1-3, 5, 6; ref. no. 2. Print product: Fig. 6; ref. no. 22. Fig. 6, ¶ [0050] at lines 1-5; ¶ [0063], at lines 7-15.
a stamping device configured to form a pattern in said base material exclusively at each of the predetermined positions, the pattern including at least one of elevations or indentations;	Stamping device: Figs. 1-3; ref. no. 33. Figs. 1-3; ¶¶ [0055]-[0056], [0059], [0067].
a film transfer device configured to transfer a transfer layer of a transfer film to said base material exclusively at the predetermined positions to which the	Film transfer device: Figs. 1-3; ref. no. 7. Transfer layer: Figs. 1-3 & 5; ref. no. 20. Transfer film: Figs. 1-3 & 5; ref. no. 10. Carrier foil layer: Figs. 5 and 6; ref. no. 18.

adhesive has been previously applied, said transfer film having at least a carrier foil layer, a parting layer, and said transfer layer;	Parting layer: Figs. 5 and 6; ref. no. 19. Transfer layer: Figs. 1-3; ref. no. 20. Figs. 5, 6, ¶ [0062] at lines 9-15; ¶ [0063] at lines 7-15; ¶ [0065] at lines 12-18.
a printing device configured to print a material exclusively at the predetermined positions of said base material;	Printing device: Figs. 1-3; ref. no. 29. Figs. 1-3; ¶ [0054] at lines 24-35; ¶ [0058] at lines 1-11; ¶ [0060] at lines 4-6, and 10-11.
a drying unit configured to actively dry said adhesive; and	Drying unit: Figs. 1-3; ref. no. 26. Figs. 1-3; ¶ [0054] at lines 13-24, ¶ [0058] at lines 11-15, ¶ [0060] at lines 10-11.
a pressing unit having a plurality of calenders configured to compress said base layer and said transfer layer;	Pressing unit: Figs. 1-3; ref. no. 8. Figs. 1-3; ¶¶ [0053], [0064].
wherein said base layer interacts with said gluing unit, said stamping device, said film transfer device, and said printing device without intermediate storage to provide the adhesive, the transfer film, the pattern, and the print material in overlapping vertical alignment on the base printing material at each of the predetermined portions.	[0018] at lines 4-7 for example; ¶ [0026] at lines 18-21; ¶ [0034] at lines 10-13; ¶ [0035]; ¶ [0054] at lines 20-26 for example; ¶ [0055]; ¶ [0058] at lines 11-15; ¶ [0060] at lines 10-16; ¶ [0065] at lines 3-5; ¶ [0067]; original Claims 4, 5, and 6; Figs. 1-3 and 6; abstract.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether independent Claims 1, 18, and 19, and those claims dependent therefrom, comply with the written description requirement of 35 U.S.C. § 112, first paragraph.

2. Whether dependent Claims 2 and 23 comply with the definiteness requirement of 35 U.S.C. § 112, second paragraph.

3. Whether independent Claims 1, 18, and 19, as well as those claims dependent therefrom, are unpatentable under 35 U.S.C. § 103(a) as obvious by the combination of Gross et al. (U.S. Pat. No. 5,603,259) in view of Vaughn et al. (U.S. Pat. No. 6,983,686).

4. Whether dependent Claim 2 is unpatentable under 35 U.S.C. § 103(a) as obvious by the combination of Gross et al. in view of Vaughn et al.

5. Whether dependent Claim 20 is unpatentable under 35 U.S.C. § 103(a) as obvious by the combination of Gross et al. in view of Vaughn et al.

6. Whether dependent Claim 22 is unpatentable under 35 U.S.C. § 103(a) as obvious by the combination of Gross et al. in view of Vaughn et al.

7. Whether dependent Claim 23 is unpatentable under 35 U.S.C. § 103(a) as obvious by the combination of Gross et al. in view of Vaughn et al.

8. Whether dependent Claims 24 and 27 are unpatentable under 35 U.S.C. § 103(a) as obvious by the combination of Gross et al. in view of Vaughn et al.

VII. ARGUMENT

A. Independent Claims 1, 18, and 19, and those Claims Dependent therefrom, Comply with the Written Description Requirement of 35 U.S.C. § 112, First Paragraph

1. *Independent Claims 1, 18, and 19*

During Applicant's interview with Examiners Nguyen and Hinze on December 15, 2011, the Examiners acknowledged that the Office Action mailed October 26, 2011 failed to clearly and properly set forth the 35 U.S.C. § 112 (¶ 1) rejection of independent Claims 1, 18, and 19. The Examiners thus restated the rejection as follows in their Interview Summary mailed December 19, 2011:

The interview was held to clarify the 112(1) rejections of claims 1, 18, and 19. The examiner inadvertently and incorrectly incorporated language of dependent claims 29-31 when explaining what the examiner perceived as deficiencies in the disclosure, with regard to the claimed subject matter of claims 1, 18, and 19. To clarify, the examiner's position is that the 112(1) rejections of claims 1, 18, and 19 stand on their own, independent of the subject matter of claims 29-31.

That is, it does not appear that the specification supports the claim limitations of having the color printing, transfer layer, and embossing in stacked or overlapping vertical alignment. In the Summary Of Claimed Subject Matter, pp. 3-7 of the Appeal Brief filed 25 July 2011, Applicant cites support for these limitations as being found in Fig. 6, ¶¶ 0054, and ¶¶ 0065-0067 (as found in Published Application No. 2007/0234919) of the Specification. However, these portions of the Specification do not appear to support the stacked or overlapping vertical alignment of the printing, embossing, and transfer layer.

Instead, these portions of the Specification, particularly Fig. 6 and ¶¶ 0066-0067, appear to support only the stacked or overlapping vertical alignment of the embossing and foil transfer. Fig. 6 and ¶¶ 0066-0067 do not appear to address the multicolor printed image, and its relationship to the embossing and transfer layer.

Because the Examiners agree that the specification supports overlap of the embossing and transfer layer, the only issue is whether the (color) print also overlaps.

As set forth above in Section V, Applicant's Summary of Claimed Subject Matter, support for the claimed overlap between the transfer layer, embossing, *and* color printing is provided throughout the application as filed. For example, paragraph [0018], lines 4-7 of the published application states the following:

Herein, the printed product to be produced can be *colour printed* before or after being coated with a film and before or after being stamped (emphasis added).

Paragraph [0060] also discloses overlap of the print at lines 10-16 as follows:

The above described execution of the method is in particular suitable if the stamped patterns, which have been stamped into the base material 2 by means of the structure and/or stamping calendar 33, shall either be provided with a transfer film 20 or *printed* in the following (emphasis added).

Further support can be found in the claims as originally filed, which constitute part of the specification. For example, original Claim 1 called for a method for the production of printed products, the printed products coated with a film and provided with a structure and/or stamped. In original dependent Claim 4, the printed products of Claim 1 having a film and provided with a structure and/or stamped, were further provided with a color print. Original Claim 4 stated:

...wherein, in another step of the methods the printed products to be produced are printed with color in a printing stage comprising at least one inking unit.

Original Claim 5 also disclosed color printing the printed products of Claim 1:

...wherein the printed products to be produced can be color printed before or after being coated with a film or before or after being stamped.

Original Claim 6 further disclosed color printing of the printed products of Claim 1:

...wherein the printed products to be produced are dried in another step of the method, wherein the drying is carried out after the film coating and/or after the color printing.

Even apart from the portions of the specification quoted above, one skilled in the art would have understood that Applicant's invention includes a method and apparatus for providing, in one continuous sequence without intermediate storage, an overlapping transfer layer, embossing, *and* (color) printing, as generally claimed. As explained by Applicant at paragraph [0034] lines 5-13 for example, the purpose of Applicant's claimed drying device and drying step is to dry the print or adhesive so that the next layer can be provided in one continuous sequence. If there was no overlap with the print, for example, then there would be no need to dry the print or the adhesive before proceeding.

Therefore, contrary to the Examiner's assertion in the Interview Summary mailed December 19, 2011, Applicant's specification does disclose overlap/alignment of each of the transfer layer, embossing, and (color) printing. Independent Claims 1, 18, and 19 are therefore supported by the application as filed and are in full compliance with 35 U.S.C. § 112, first paragraph. Applicant respectfully requests that the Board overturn this Section 112 (¶1) rejection of independent Claims 1, 18, and 19, as well as those claims dependent therefrom.

2. Dependent Claims 29-31

In the October 26, 2011 Office Action the Examiner also rejected dependent Claims 29-31 under Section 112 (¶1), each of which generally recite that the transfer layer, the print, and the embossing or stamping include "the same design pattern." Contrary to the Examiner's assertions, the claims are not limited to only the same design being present. Because independent Claims 1, 18, and 19 call for overlap between the transfer layer, the print, and the embossing, they must necessarily include

the same design pattern. Therefore, Claims 29-31 are in full compliance with 35 U.S.C. § 112, first paragraph. Applicant respectfully requests that the Board overturn this Section 112 (¶1) rejection of dependent Claims 29-31.

B. Dependent Claims 2 and 23 Comply with the Definiteness Requirement of 35 U.S.C. § 112, Second Paragraph

Dependent Claims 2 and 23 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

With respect to Claim 2, the Examiner rejected it as being contradictory with Claim 1. Claims 1 and 2 are allegedly contradictory because according to the Examiner Claim 1 calls for color printing before coating with the adhesive, but Claim 2 calls for application of the adhesive before color printing. It appears that the rejection is due to an incorrect reading of Claim 1 by the Examiner. Claim 1 recites “providing a color printing at the predetermined positions of the base material one of before or after coating the base material with an adhesive” (emphasis added). Thus, Claim 1 does not require color printing *before* coating with the adhesive, but rather “before or after.” Claim 2 further narrows the scope of Claim 1 by calling for application of the adhesive *before* the color printing. Claim 2 thus particularly points out and distinctly claims Applicant’s invention and complies with 35 U.S.C. § 112 (¶2). Applicant thus respectfully requests that this Board overturn the Section 112 (¶2) rejection of dependent Claim 2.

With respect to Claim 23, the Examiner asserted that “it is not clear how one would determine when an adhesive is ‘completely’ dry.” The Examiner failed to provide

any support for this assertion and thus failed to set forth a *prima facie* rejection. Applicant submits that one skilled in the art of printing and adhesives would clearly understand “completely” dry as claimed. Claim 23 thus particularly points out and distinctly claims Applicant’s invention and complies with 35 U.S.C. § 112 (¶2). Applicant respectfully requests that this Board overturn the Section 112 (¶2) rejection of dependent Claim 23.

C. Combination of Gross et al. and Vaughn et al. Fails to Render Obvious Under 35 U.S.C. § 103 Independent Claims 1, 18, and 19, as well as those Claims Dependent Therefrom

Independent Claims 1, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gross et al. (U.S. Pat. No. 5,603,259) in view of Vaughn et al. (U.S. Pat. No. 6,983,686). For the reasons set forth below, Applicant respectfully submits that this combination is not proper and fails to render the claims obvious.

1. *Teachings of Claim 1*

Independent Claim 1 recites, in part, the following:

- “**actively drying** with a drying device one of the adhesive or the color printing;”
- “wherein the print products to be produced **successively undergo** the steps of the method in one continuous sequence **without intermediate storage**,” and
- “wherein at each predetermined position on the substrate the transferred portion of the **transfer layer**, the **color printing**, and the **embossing overlap** and are positioned in **stacked vertical alignment** with respect to the base material” (emphasis added).

2. *Teachings of Claim 18*

Independent Claim 18 recites, in part, the following:

- “**actively drying** one of the adhesive or the print in a drying unit;”

- “wherein the method is performed successively and continuously without intermediate storage,” and
- “wherein at each predetermined position the adhesive, the transfer layer, the print, and the embossing are in overlapping, vertical alignment with respect to the base layer” (emphasis added).

3. *Teachings of Claim 19*

Independent Claim 19 recites, in part, the following:

- “a drying unit configured to actively dry said adhesive;”
- “wherein said base layer interacts with said gluing unit, said stamping device, said film transfer device, and said printing device without intermediate storage to provide the adhesive, the transfer film, the [stamped] pattern, and the print material in overlapping vertical alignment on the base printing material at each of the predetermined portions” (emphasis added).

4. *Background of the Invention and Technical Field*

Applicant's invention, particularly as set forth in Claims 1, 18, and 19, solved numerous long-felt needs, overcame a number of technical obstacles, and includes many novel features that provide advanced printing capabilities. For example, prior to Applicant's invention it was not possible to provide a transfer film, a color print, and an embossing in stacked vertical alignment on a substrate in one continuous sequence without intermediate storage of the substrate, as generally claimed. Rather, manufacturing had to be stopped after the transfer film adhesive and/or the color printing was deposited on the substrate to give the adhesive or printing adequate time to dry.

For example and as set forth in Applicant's specification, in the embodiment of Figure 1 the adhesive layer 3 (Figure 5) with the transfer film mounted thereto should be dry prior to embossing or printing. See p. 15, ¶ 2; p. 16, ¶ 1. With respect to the embodiment of Figure 2, the base layer 2 and any material printed thereon should be

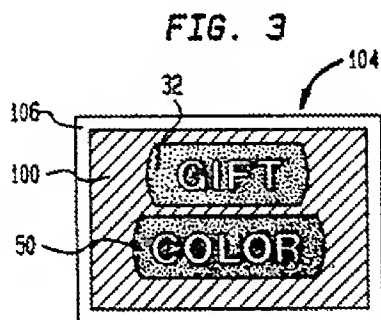
dry to “assure a correct application of the adhesive agent 3 and a subsequent application of the transfer layer.” See page 16, ¶ 4. Applicant's claimed in-line drying step and the active drying device 26 eliminate the need to subject the substrate to an intermediate storage step to dry the adhesive. Such a storage step is time consuming (particularly because air drying is often employed) and increases production costs by limiting the number of print products that can be produced during a given production period.

By actively drying the adhesive or the color print in-line with a drying unit, Applicant has been able to fulfill a long-felt need in the art to provide for production of print products in a continuous sequence without intermediate storage, the print products including each of the following in overlapping, stacked vertical alignment: (1) a transfer layer; (2) color printing; and (3) embossing.

5. *Teachings of the Gross et al. Reference*

The Gross reference appears to disclose a printing device that includes a first printing station 14 where a first word is printed in color, such as “COLOR.” The letters are recessed within raised area 44 on roller 38 so that the letters of “COLOR” are not colored, but the surrounding area is. A second printing station 16 is similar to the first printing station in order to print a second word, such as “GIFT.” An adhesive is applied at a third printing station 18. A roller 74 of the third station 18 includes inner indentations 82 and 84 at areas corresponding to the previously printed words and a surrounding raised area 80. Thus, the adhesive is applied only to the area surrounding the printed words.

After the adhesive is applied, it is heated to initiate a curing process, which continues under “ambient conditions.” See col. 5, lines 1-4. At transfer station 24, a metallic layer 98 is transferred to the adhesive 68 from the roll leaf 90. After exiting the transfer station 24, “[t]he adhesive curing process, which was initiated at the heating station 20, now continues on each piece under ambient conditions.” See col. 5, lines 26-34 (emphasis added). The finished product is below.



The words “GIFT” and “COLOR” are not colored and not printed in ink, but rather outlined by the ink layers 32 and 50 respectively. A metalized design 100 surrounds the ink patterns where the adhesive was previously applied. A non-metalized outer border 106 is also included.

The March 15, 2011 Final Action asserted that Gross discloses an overlapping transfer layer and color printed layer. See 3-15-2011 Final Action at 1st line of page 6. But this is clear error – there is NO overlap as illustrated in Figure 3 and explained above. The Examiner thus finally agreed in the October 26, 2011 Office Action at page 4, ¶ 3(b) that “Applicant’s allegations appear to be correct.” Gross thus fails to disclose or suggest vertically aligning a transfer layer and color print layer, as generally claimed. Gross also fails to disclose or suggest **embossing or a structure including elevations and/or indentations** as claimed and as acknowledged in the October 26, 2011 Office

Action at page 5, ¶ 3(e). Gross only discloses processing a flat web. Further, Gross fails to disclose or suggest active drying of the adhesive after the roll leaf 90 is transferred. Instead, the adhesive curing process continues under “ambient conditions.”

The Examiner’s new argument is that “Gross clearly has the capability to print the film transfer layer over the multi-color ink image.” See October 26, 2011 Office Action at page 4, ¶ 3(b). But this is also clear error. The device and method disclosed by Gross do not have this capability. Gross is only capable of producing the product pictured above. For the transfer layer and color layer to overlap, the device of Gross would have to be modified in a manner contrary to its teachings to produce a product different than that disclosed, and any such modification would be based on hindsight because there is no suggestion in the reference or the art to make the modification. Such modifications are not permissible, and there is no indication in Gross or the art that such modifications would even be possible.

With respect to Gross’ failure to disclose or suggest active drying of the adhesive after the roll leaf 90 is transferred, the Examiner refused to give weight to this argument because, according to the Examiner, Applicant did not specifically claim drying *after* the roll leaf is transferred. See October 26, 2011 Office Action at page 4, ¶ 3(c). But the Examiner’s interpretation of the claims is incorrect because drying must necessarily take place after roll leaf is transferred for the invention to function properly. The Examiner’s interpretation of the claims is not supported by the specification and should be given no weight. Gross’ failure to disclose or suggest active drying of the adhesive after the roll leaf 90 is transferred is a valid distinction that should be considered by the Examiner.

In the October 26, 2011 Office Action at page 4, ¶ 3(d), the Examiner asserts that Gross teaches actively drying the adhesive. Gross does disclose active drying, but only prior to transfer of the roll leaf. Gross fails to disclose or suggest active drying of the adhesive after the roll leaf is transferred as generally claimed. The Examiner is thus focusing on drying at the wrong stage.

6. *Teachings of the Vaughn et al. Reference*

The Vaughn reference appears to disclose a device for providing a substrate with embossed images 20 and printed images 30, which may “overlap, resulting in a synergistic visual interaction between the two images, or where the two images are separated from each other.” See col. 3, lines 37-40. Vaughn fails to disclose or suggest either applying a transfer film to the substrate or active drying. Vaughn thus fails to disclose or suggest vertically aligning on a substrate all three of (1) a transfer film, (2) an embossing (or a pattern with elevations or indentations), and (3) a printing, as generally set forth in amended independent Claims 1, 18, and 19.

Vaughn's teachings are limited to a continuous stretchable substrate (see col. 2, line 52; col. 3, lines 19-26). Embossed elevations and/or indentations, such as disclosed and generally claimed by Applicant, cannot be maintained in such a stretchable substrate because it has a spring force that will remove the structure. Vaughn's substrate will therefore remain continuously flat, which is supported by the fact that Vaughn does not disclose embossing that provides elevations or indentations, but only a flat “disruption” of the structure of the substrate (col. 5, lines 8-12), which is simply a type of watermark. This is why embossing can take place before printing (Figure 1 of Vaughn). Otherwise, the use of printing rollers (ref. nos. 31, 32), which are

not disclosed as having a gap therebetween, would destroy the elevations or indentations. Such an embossed “disruption” provides an uneven surface to which it would be very difficult, if not impossible, to secure a transfer layer to.

7. *Combination of Gross and Vaughn is Improper and Fails to Render Obvious Independent Claims 1, 18, and 19*

The 35 U.S.C. § 103 rejection is improper because it relies on an incorrect factual basis and one skilled in the art would not have been motivated to combine and modify the Gross and Vaughn references as asserted in the Office Action. As sole basis for the combination, the Examiner stated as follows:

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gross to provide an embossing at the predetermined positions of the base material, because Vaughn teaches that one can predictably print and emboss a substrate in vertically stacked alignment, and embossing is advantageous for enhancing the aesthetics of consumer products.

See 10-26-2011 Office Action at 12, 14-15, and 17.

The proposed combination of Gross and Vaughn is improper because the Examiner is inappropriately relying on speculation, unfound assumptions, hindsight reconstruction, and “common knowledge without evidentiary support in the record.” *In re Warner*, 379 F.2d 1011, 1017, 154 U.S.P.Q. 173, 178 (C.C.P.A. 1967); MPEP § 2144.03 (citing *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001)). Even if Gross could be modified as asserted by the Examiner, the modifications are not obvious because the prior art failed to suggest their desirability. *In re Mills*, 916 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1990).

For example, the Office Action failed to provide any evidence or explanation as to why and/or how one of ordinary skill in the art would have been motivated to modify Gross

in view of Vaughn to arrive at the claimed invention. Just because Vaughn teaches overlapping printed and embossed images, which may “enhanc[e] the aesthetics” as asserted by the Examiner (or may not as this is merely an unsupported opinion), does not make it obvious to add an embossing to Gross, particularly because the Examiner failed to provide support for his assertion. There is no suggestion in either Gross or the art to provide Gross’ web/film 12 with an embossing, and particularly no suggestion to provide the web/film of Gross with an embossing that **vertically overlaps both transfer and printed color layers**, as generally claimed. Even if some sort of aesthetic benefit could have resulted as the Examiner asserts, this does not change the fact that the Examiner’s proposed combination is improperly based on speculation, unfounded assumptions, and hindsight reconstruction. Accordingly, the Office Action’s proposed combination of Gross with Vaughn is improper.

Even if it were obvious to combine Gross and Vaughn to provide Gross with an embossing, the combination would fail to arrive at the claimed invention because, contrary to the Examiner’s assertion, Gross fails to disclose or suggest an overlapping transfer layer and printing. As described above, the metalized transfer layer 100 of Gross simply surrounds, **but does not vertically overlap**, the color printed layers 32 and 50. At best, the combination would result in the substrate of Gross including the overlapping embossed image 20 and printed image 30 of Vaughn being spaced apart from Gross’ metalized design 100 of the label 104 reproduced above. **The combination would not result in all three of (1) a transfer layer, (2) a print, and (3) an embossing in overlapping vertical alignment, as generally set forth in independent Claims 1, 18, and 19.**

Furthermore, the rollers of Gross and Vaughn would destroy any embossing provided on the substrate. This argument does not contradict Applicant's own invention as the Examiner asserted because Applicant's rollers define a "printing gap" therebetween (see ¶ [0063], line 3) to preserve the embossing.

In the "Response to Arguments" section of the October 26, 2011 Office Action, the Examiner questioned the patentability of the claims at page 3, ¶ 2(b), asserting that they are directed to "content of printed matter," which is not patentable pursuant to MPEP § 2112.01. But Applicant is not claiming printed matter. Rather, Applicant is claiming "a method for the production of print products" (Claim 1), "a method for producing a print product" (Claim 18), and a "printing apparatus" (Claim 19). The Claims are thus directed to patentable subject matter.

For the reasons set forth above, the rejection of independent Claims 1, 18, and 19 under 35 U.S.C. § 103 is improper because one skilled in the art would not have been motivated to combine the Gross and Vaughn references, the proposed combination is based on impermissible hindsight, and the combination, even if proper, fails to disclose or suggest each and every feature of independent Claims 1, 18, and 19. For example, the combination fails to disclose at least each of a transfer layer, a print, and an embossing in overlapping vertical alignment with respect to a base layer, as generally set forth in independent Claims 1, 18, and 19. Applicant therefore respectfully requests that this Board overturn the Section 103 rejection of independent Claim 1, 18, and 19, as well as those claims dependent therefrom.

D. Combination of Gross et al. and Vaughn et al. Fails to Render Dependent Claim 2 Obvious Under 35 U.S.C. § 103

Dependent Claim 2 stands rejected under Section 103 as unpatentable over Gross and Vaughn. Dependent Claim 2 recites, “wherein prior to the embossing and the color printing, the transfer layer is adhered to the base material with the adhesive and the adhesive is dried.” In the March 15, 2011 Final Action the Examiner acknowledged that the combination of Gross and Vaughn fails to teach these features. See 3-15-2011 Final Action at 7. As basis for the rejection, the Examiner asserted that the mere rearrangement of parts is not patentable and that:

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gross to place the adhesive application and transfer stations before the printing stations, because this would predictably allow the printing to proceed after the foil transfer, and one having ordinary skill in the art may desire to take advantage of the aesthetic effects that would result[], such as, for example, the effect of printing on top of the transferred foil leaf.

See 3-15-2011 Final Action at 7. It appears that the Examiner failed to specifically address Claim 2 in the October 26, 2011 Office Action.

The proposed modification of Gross is improper because it is based on impermissible hindsight and the Examiner failed to point to any suggestion in the art to support the desirability of the modification. *In re Mills*, 221 U.S.P.Q. 1125 (Fed. Cir. 1990). Even if it were possible to rearrange the adhesive and roll leaf transfer stations before the printing stations to provide different aesthetic effects, this is insufficient basis to support an obviousness rejection, particularly because the Examiner failed to assert that the “aesthetic effects” are an improvement or more desirable. *Id.*

Even if it were obvious to modify Gross as the Examiner asserted, the modification fails to render the claimed invention obvious because **the Examiner did not address the claimed “embossing.”** Because Gross fails to disclose or suggest embossing and the Examiner did not address this feature in his rejection of Claim 2, the Examiner failed to establish a *prima facie* rejection of Claim 2.

The proposed modification is also improper because it is not supported by the art. Gross is limited to performing roll leaf transfer last (after printing) and Vaughn only discloses embossing first (prior to printing). Thus, the proposed combination would merely result in embossing, followed by printing, followed by roll leaf transfer. The combination fails to suggest Claim 2, which calls for film transfer prior to both embossing and color printing.

Applicant therefore respectfully requests that this Board overturn the Section 103 rejection of dependent Claim 2.

E. Combination of Gross et al. and Vaughn et al. Fails to Render Dependent Claim 20 Obvious Under 35 U.S.C. § 103

Dependent Claim 20 stands rejected under Section 103 as unpatentable over Gross and Vaughn. Dependent Claim 20 recites “wherein said base layer interacts with said film transfer device before said stamping device.” The Examiner based his rejection of Claim 20 on the following in the March 15, 2011 Final Office Action: “the combination of Gross and Vaughn could result in an apparatus where the embossing is either after or before the foil transfer”. In the October 26, 2011 Office Action, the Examiner generally asserted that the order would have been obvious to achieve “aesthetic benefits.”

But Gross discloses performing roll leaf transfer last (after printing) and Vaughn discloses embossing first (prior to printing). Thus, even if the combination of the Gross and Vaughn references was proper, the combination would merely result in embossing, followed by printing, followed by roll leaf transfer. The combination would not render obvious Claim 20, which calls for film transfer prior to stamping. The Examiner's assertion that one skilled in the art would have been motivated by "aesthetic benefits" is improperly based on hindsight, speculation, and unfound assumptions.

Applicant therefore respectfully requests that this Board overturn the Section 103 rejection of dependent Claim 20.

F. Combination of Gross et al. and Vaughn et al. Fails to Render Dependent Claim 22 Obvious Under 35 U.S.C. § 103

Dependent Claim 22 stands rejected under Section 103 as unpatentable over Gross and Vaughn. Dependent Claim 22 recites, "wherein said drying unit is between said gluing unit and said printing device." The Examiner asserted that the heating station 20 illustrated in Figure 1 of Gross is between a gluing unit and a printing device. But contrary to the Examiner's assertion, the heating station 20 is between glue printing station 18 and the roll leaf transfer station 24, not a gluing unit and a printing device as set forth in Claim 22 (Gross' printing stations 14 and 16 are "upstream" of both the glue station 18 and the roll leaf transfer station 24). Even if the adhesive of Gross can be applied at the other printing stations as well, as the Examiner asserted in the October 26, 2011 Office Action, Gross still does not disclose or suggest moving the heating station 20. The Examiner's rejection is thus based on an incorrect interpretation of the art, and the Examiner has failed to establish a prima facie case of obviousness. The rejection is also

improper because it is based on impermissible hindsight and requires modification of Gross that is not suggested by Gross or the art generally.

Applicant therefore respectfully requests that this Board overturn the Section 103 rejection of dependent Claim 22.

G. Combination of Gross et al. and Vaughn et al. Fails to Render Dependent Claim 23 Obvious Under 35 U.S.C. § 103

Dependent Claim 23 stands rejected under Section 103 as unpatentable over Gross and Vaughn. Dependent Claim 23 recites, “wherein actively drying with the drying device completely dries the adhesive layer.” As the Examiner correctly pointed out, Gross recites the following at col. 4, line 65 to col. 5, line 1: “the heating station 20, which functions to evaporate water contained in the adhesive 68 that has been applied to the web 12, thereby drying the adhesive” But the adhesive cannot be “completely” dry as claimed because at the transfer station 24 the adhesive must be sufficiently wet to bond to the metallic layer 98 of the roll leaf 90 without the application of heat. *See* col. 5, lines 5-25. Gross thus teaches away from “completely” drying the adhesive layer as claimed because the device of Gross would not function if the adhesive was “completely” dry. Applicant therefore respectfully requests that this Board overturn the Section 103 rejection of dependent Claim 23.

H. Combination of Gross et al. and Vaughn et al. Fails to Render Dependent Claims 24 and 27 Obvious Under 35 U.S.C. § 103

Dependent Claims 24 and 27 each stand rejected under Section 103 as unpatentable over Gross and Vaughn. Dependent Claim 24 recites, “wherein the drying step includes drying with at least one of infrared radiation and ventilator blowing.”

Dependent Claim 27 recites, “wherein the drying unit includes one of ventilator blowing or infrared radiation.”

The Office Action asserts that the heating station 20 (col. 3, lines 37-45) of Gross discloses drying with infrared radiation. But Gross fails to disclose how the heating station 20 generates heat, and fails to disclose or suggest either infrared radiation or ventilator blowing, as set forth in Claims 24 and 27. Contrary to the Examiner’s assertion, Applicant has never asserted that “the heat tunnel of Gross cannot be a heat tunnel because Gross fails to disclose the precise method by which the heat tunnel generates heat.” See ¶ 3(h) of October 26, 2011 Office Action. Rather, Applicant’s position is that Gross fails to disclose or suggest drying with infrared radiation or ventilator blowing as claimed. Applicant therefore respectfully requests that this Board overturn the Section 103 rejection of each of dependent Claims 24 and 27.

CONCLUSION

In view of the above discussion, Applicant believes that the pending claims are patentably distinguishable over the art cited by the Examiner. Accordingly, Applicant respectfully requests that this Board reverse the final rejection of Claims 1-3, 5, 7, 9, 18-20, 22-25, and 27-31.

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

PAYMENT

Please charge any deficiency or credit any overpayment pursuant to 37 C.F.R. § 1.16, § 1.17 or § 41.20 to Deposit Account No. 08-0750.

Dated: January 25, 2012

Respectfully submitted,

/G. Gregory Schivley/

By: G. Gregory Schivley

Registration No.: 27,382

HARNESS, DICKEY & PIERCE, P.L.C.

P.O. Box 828

Bloomfield Hills, Michigan 48303

(248) 641-1258

Attorney for Applicant

APPENDIX A - CLAIMS

Claims Involved in the Appeal of Application Serial No. 10/579,278.

1. (Previously Presented) A method for the production of print products by combining various immediately successive processing methods, the method comprising the steps of:

partially coating less than an entirety of a base material with an adhesive at predetermined positions of the base material corresponding to intended locations of the print products;

providing a transfer film including a carrier foil layer, a parting layer, and a transfer layer;

removing said transfer layer from said carrier foil and transferring less than an entirety of the transfer layer to the base material exclusively at the predetermined positions of the base layer by adhering the transfer layer to the adhesive;

providing an embossing at the predetermined positions of the base material;

providing a color printing at the predetermined positions of the base material one of before or after coating the base material with an adhesive; and

actively drying with a drying device one of the adhesive or the color printing;

wherein the print products to be produced successively undergo the steps of the method in one continuous sequence without intermediate storage; and

wherein at each predetermined position on the substrate the transferred portion of the transfer layer, the color printing, and the embossing overlap and are positioned in stacked vertical alignment with respect to the base material.

2. (Previously Presented) The method according to claim 1, wherein prior to the embossing and the color printing, the transfer layer is adhered to the base material with the adhesive and the adhesive is dried.

3. (Previously Presented) The method according to claim 1, wherein the after the embossing and color printing, the color printing is dried and the transfer layer is transferred to the base material with the adhesive.

4. (Cancelled)

5. (Previously Presented) The method according to claim 1, wherein the color printing is provided one of before or after the embossing.

6. (Cancelled)

7. (Previously Presented) The method according to claim 1, wherein the transfer film is stretched in the direction of width.

8. (Cancelled)

9. (Previously Presented) The method according to claim 1, further comprising pressing the transfer layer onto the base material using a pressing unit.

10. – 17. (Cancelled)

18. (Previously Presented) A method for producing a print product, said method comprising:

coating a base layer with an adhesive layer exclusively at predetermined positions of the base layer corresponding to desired locations of the print products;

providing a transfer film including at least a carrier foil layer, a parting layer, and a transfer layer;

transferring portions of the transfer layer to said base layer exclusively at the predetermined positions including the adhesive;

embossing the base layer at the predetermined positions of the base layer one of before or after coating the base layer with the adhesive layer;

printing the base layer with a print at the predetermined positions of the base layer one of before or after coating the base layer with the adhesive layer; and

actively drying one of the adhesive or the print in a drying unit;

wherein the method is performed successively and continuously without intermediate storage; and

wherein at each predetermined position the adhesive, the transfer layer, the print, and the embossing are in overlapping, vertical alignment with respect to the base layer.

19. (Previously Presented) A combined in-line printing apparatus comprising:

a gluing unit configured to selectively apply an adhesive to a plurality of predetermined positions of a base printing material fed through said printing apparatus, each one of the predetermined positions corresponding to a desired location of a print product on the base printing material;

a stamping device configured to form a pattern in said base material exclusively at each of the predetermined positions, the pattern including at least one of elevations or indentations;

a film transfer device configured to transfer a transfer layer of a transfer film to said base material exclusively at the predetermined positions to which the adhesive has been previously applied, said transfer film having at least a carrier foil layer, a parting layer, and said transfer layer;

a printing device configured to print a material exclusively at the predetermined positions of said base material;

a drying unit configured to actively dry said adhesive; and

a pressing unit having a plurality of calenders configured to compress said base layer and said transfer layer;

wherein said base layer interacts with said gluing unit, said stamping device, said film transfer device, and said printing device without intermediate storage to

provide the adhesive, the transfer film, the pattern, and the print material in overlapping vertical alignment on the base printing material at each of the predetermined portions.

20. (Previously Presented) The combined in-line printing apparatus of claim 19 wherein said base layer interacts with said film transfer device before said stamping device.

21. (Cancelled)

22. (Previously Presented) The combined in-line printing apparatus of claim 19, wherein said drying unit is between said gluing unit and said printing device.

23. (Previously Presented) The method of claim 1, wherein actively drying with the drying device completely dries the adhesive layer.

24. (Previously Presented) The method of claim 1, wherein the drying step includes drying with at least one of infrared radiation and ventilator blowing.

25. (Previously Presented) The method of claim 1, wherein the drying device includes a first part on a first side of the print products and a second part on a second side of the print products that is opposite to the first side.

26. (Cancelled)

27. (Previously Presented) The combined in-line printing apparatus of claim 19, wherein the drying unit includes one of ventilator blowing or infrared radiation.

28. (Previously Presented) The combined in-line printing apparatus of claim 22, wherein the drying unit is one of upstream or downstream from the gluing unit.

29. (Previously Presented) The method of claim 1, wherein at each predetermined position on the substrate the transferred portion of the transfer layer, the color printing, and the embossing are provided with the same design pattern.

30. (Previously Presented) The method of claim 18, wherein at each predetermined position the transfer layer, the print, and the embossing have the same design pattern.

31. (Previously Presented) The combined in-line printing apparatus of claim 19, wherein the transfer film, the pattern formed by the stamping device, and the print material each include the same design pattern.

APPENDIX B - EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the Examiner is being submitted.

APPENDIX C – RELATED PROCEEDINGS

No related proceedings are referenced in Section II above, hence copies of decisions in related proceedings are not provided.

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